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<b>(21) International Application Number:</b> PCT/US99/07854 <b>(22) International Filing Date:</b> 9 April 1999 (09.04.99)  <b>(30) Priority Data:</b> 60/081,138 9 April 1998 (09.04.98) US  <b>(71) Applicant (for all designated States except US):</b> UNIVERSITY OF NEBRASKA BOARD OF REGENTS [US/US]; Regents Hall, 3835 Holdrege Street, Lincoln, NE 68598 (US).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> TRACY, Steven, M. [US/US]; 1622 N. 53rd Street, Omaha, NE 68104 (US). CHAPMAN, Nora, M. [US/US]; 1622 N. 53rd Street, Omaha, NE 68104 (US).  <b>(74) Agents:</b> REED, Janet, E. et al.; Dann, Dorfman, Herrell and Skillman, Suite 720, 1601 Market Street, Philadelphia, PA 19103 (US).		<b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i>
<b>(54) Title:</b> IMPROVED LIVE ATTENUATED VIRUSES FOR USE AS VECTORS OR VACCINES  <b>(57) Abstract</b>  The present invention provides modified viral genomes for use as vaccines or vectors, which are improved in their ability to retain attenuating mutations. The genomes are from viruses that replicate by way of an RNA-dependent RNA or DNA polymerase. The genomes are modified in the <i>pol</i> gene to encode polymerases that catalyze slower replication, have increased transcriptional fidelity, or are otherwise altered such that the reversion rate of the modified virus to a non-attenuated form is decreased as compared to an equivalent, unmodified virus. In particular, modified coxsackievirus genomes are disclosed.		